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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1(Cancelled).

2(Previously Presented). The nucleotide sequence according to claim 6, comprising

- (a) SEQ ID NO: 1 or
- (b) the complete complement of SEQ ID NO: 1.

3(Previously Presented). The nucleotide sequence according to claim 2, which is synthetically or recombinantly produced.

4(Cancelled).

5(Previously Presented). The nucleotide sequence according to claim 2, which is present as a wild-type gene in normal human epidermal keratinocytes and normal human osteoblasts.

6(Previously Presented). An isolated nucleotide sequence that encodes a Chfr polypeptide SEQ ID NO: 2 that delays entry of a human cell into metaphase in response to mitotic stress.

7-22 (Cancelled).

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23(Currently Amended). The reagent according to claim ~~24~~ 67, further comprising a detectable label.

24-42 (Cancelled).

43(Previously Presented). The reagent according to claim 23, wherein said label is a fluorescent label or an enzyme.

44(Currently Amended). The reagent according to claim ~~24~~ 67, wherein said nucleic acid ~~fragment~~ sequence encodes an amino acid fragment from within amino acids 31-103 of SEQ ID NO: 2.

45(Currently Amended). The reagent according to claim ~~24~~ 67, wherein said nucleic acid ~~fragment~~ sequence encodes an amino acid fragment from within amino acids 303 to 346 of SEQ ID NO: 2.

46(Currently Amended). The reagent according to claim ~~24~~ 67, wherein said nucleic acid ~~fragment~~ sequence encodes an amino acid fragment from within ~~encodes~~ amino acids 476 to 641 of SEQ ID NO: 2.

47-50 (Cancelled)

51(Currently Amended). The kit according to claim ~~49~~ 68, wherein said nucleotide fragment (i) or (ii) is attached to a detectable label.

52(Previously Presented). The kit according to claim 51, wherein said detectable label is a fluorescent compound or an enzyme.

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53(Previously Presented). The kit according to claim 52, further comprising one or more components that detect said labels.

54(Currently Amended). The kit according to claim 49-~~68~~, further comprising a component selected from the group consisting of instructions for performing a PCR assay for the detection of the expression of a nucleotide sequence encoding Chfr polypeptide SEQ ID NO: 2, microtiter plates to which said nucleic acid sequences have been pre-adsorbed, diluents, buffers, applicator sticks, containers, and sample preparator cups.

55(Currently Amended). The kit according to claim 49-~~68~~, wherein said nucleotide sequence (i) or (ii) is synthetically or recombinantly produced.

56(Currently Amended). The kit according to claim 49-~~68~~, further comprising instructions for performing PCR on tumor cells of said mammal using said nucleotide sequence (i) or (ii).

57-60(Cancelled)

61(Currently Amended) The composition according to claim ~~60~~ 69, wherein said nucleotide sequence encoding Chfr is SEQ ID NO: 1 ~~or the complete complement thereof~~.

62(Currently Amended) The composition according to claim ~~60~~ 69, wherein said primers amplify a portion of said nucleotide sequence encoding Chfr.

63(Previously Presented) The composition according to claim 62, wherein said amplified portion is selected from the group consisting of nucleotides 66-562 of SEQ ID NO: 1, nucleotides 352-1055 of SEQ ID NO: 1, nucleotides 771-1376 of SEQ ID NO:

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1, nucleotides 904-1753 of SEQ ID NO: 1, nucleotides 904-1772 of SEQ ID NO: 1, nucleotides 904-1902 of SEQ ID NO: 1, nucleotides 1187-1753 of SEQ ID NO: 1, nucleotides 1187-1772 of SEQ ID NO: 1, nucleotides 1215-1753 of SEQ ID NO: 1, nucleotides 1215-1772 of SEQ ID NO: 1, nucleotides 1214-1902 of SEQ ID NO: 1, and nucleotides 1625-2279 of SEQ ID NO: 1.

64(Previously Presented) The composition according to claim 62, wherein said amplified portion is selected from the group consisting of a nucleotide sequence encoding amino acids 31-103 of SEQ ID NO: 2; a nucleotide sequence encoding amino acids 303-346 of SEQ ID NO: 2; and a nucleotide sequence encoding amino acids 476-641 of SEQ ID NO: 2.

65(Currently Amended) The composition according to claim ~~65~~ 62, wherein said amplified nucleotide sequence is selected from the group consisting of nucleotides 180-399, nucleotides 557 to 1128 and nucleotides 1516-2013 of SEQ ID NO: 1.

66(Cancelled).

67(New): A reagent consisting of a nucleic acid fragment of the protein-encoding sequence of SEQ ID NO: 1 or to the sequence antisense to SEQ ID NO: 1, wherein said fragment consists of between 12 to 30 or 14 to 50 nucleic acids in length.

68(New): A kit for detecting expression of a nucleotide sequence encoding the Chfr protein SEQ ID NO: 2 in mammalian cells, said kit comprising

- (i) a first nucleotide sequence of SEQ ID NO: 1 consisting of between 12 to 30 or 14 to 50 nucleotides in length; and
- (ii) a second nucleotide sequence of the antisense of SEQ ID NO: 1 consisting of between 12 to 30 or 14 to 50 nucleic acids in length.

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69(New): A composition comprising a pair of primer sequences, said primer sequences consisting of

(a) a nucleic acid sequence encoding Chfr protein of SEQ ID NO: 2 consisting of between 12 to 30 or 14 to 50 nucleic acids in length; and

(b) a nucleic acid sequence of the antisense of the sequence encoding Chfr protein of SEQ ID NO: 2 consisting of between 12 to 30 or 14 to 50 nucleic acids in length.